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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,747	06/18/2001	Pierre Lasson	32232-172620	8763

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EXAMINER
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MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 05/07/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/881,747

Applicant(s)

LASSON ET AL.

Examiner

Michael C. Miggins

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 08/188,417.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 6-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 5,429,849 (Lasson et al.) in view of Whiton (U.S. Patent No. 3,541,039).

Claims 1-5 of Lasson et al. recite or substantially recites a pipe, or a shaped article, including at least one layer consisting of a composition comprising a PVDF homopolymer and at least one fluoropolymer, where in the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer, approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride (VF<sub>2</sub>) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25%, wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene (applies to instant claims 6-8 and 12).

Lasson et al. recites applicant's invention substantially as claimed. However, Lasson et al. fail to recite the composition further comprises approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer, wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid.

Whiton teaches a composition further comprising approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer (column 2, lines 30-58, column 3, lines 8-36), wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid (column 3, line 8 through column 4, line 75) (applies to instant claims 6-7 and 11, 15) in a PVDF and VF<sub>2</sub> mixture for the purpose of providing high flexibility and workability.

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a composition which further comprises approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer, wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid in the pipe, or shaped article of Lasson et al. in order to provide high flexibility and workability as taught or suggested by Whiton.

With regards to claims 9 and 13, although Lasson et al. fails to recite the specific melt index recited in instant claims 9 and 13 for the copolymer, such a melt index is inherent in the invention recited by Lasson et al. because Lasson et al. specifically recite one fluoropolymer, where in the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer, approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride (VF<sub>2</sub>) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25%, wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene (see claims 1-5 of Lasson et al.). Furthermore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided said melt index in the composition recited by Lasson et al. in order to provide improved flexibility (applies to instant claims 9 and 13).

The combination of Lasson et al. and Whiton recites or discloses the claimed invention except for the materials recited in claims 10 and 14 used as the plasticizer. However, Whiton discloses an array of compounds which are polyesters which are formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid (see column 3, line 8 through column 4, line 75). Thus one of ordinary skill in the art would have recognized that the polyester material selected as the plasticizer would be readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention

Art Unit: 1772

was made to have provided the plasticizer recited in claims 10 and 14 in the composition of Lasson et al. in order to provide high flexibility and workability, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (applies to instant claims 10 and 14). *In re Leshin*, 125 USPQ 416.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trautvetter et al. (U.S. Patent No. 4,200,568) in view of Whiton (U.S. Patent No. 3,541,039).

Trautvetter et al. teach a shaped article (column 1, lines 13-21), including at least one layer consisting of a composition comprising a PVDF homopolymer and at least one fluoropolymer (column 1, lines 58-68), wherein the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer (column 1, lines 58-68), approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride (VF<sub>2</sub>) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25% (column 2, lines 63-68), wherein the fluoromonomer is selected from the group consisting of

Art Unit: 1772

hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene (column 2, lines 63-68) (applies to instant claims 7 and 12).

Trautvetter et al. disclose applicant's invention substantially as claimed.

However, Trautvetter et al. fail to disclose the composition further comprises approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer, wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid.

Whiton teaches a composition further comprising approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer (column 2, lines 30-58, column 3, lines 8-36), wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid (column 3, line 8 through column 4, line 75) (applies to instant claims 7 and 15) in a PVDF and VF<sub>2</sub> mixture for the purpose of providing high flexibility and workability.

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a composition which further comprises approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer, wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the

Art Unit: 1772

polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid in the pipe, or shaped article of Trautvetter et al. in order to provide high flexibility and workability as taught or suggested by Whiton.

With regards to claim 13, although Trautvetter et al. fail to recite the specific melt index recited in instant claims 13 for the copolymer, such a melt index is inherent in the invention of Trautvetter et al. because Trautvetter et al. specifically specifically teach one fluoropolymer, where in the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer, approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride ( $VF_2$ ) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25%, wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene as discussed above. Furthermore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided said melt index in the composition recited by Trautvetter et al. in order to provide improved flexibility (applies to instant claim 13).

The combination of Trautvetter et al. and Whiton discloses the claimed invention except for the material recited in claim 14 used as the plasticizer. However, Whiton discloses an array of compounds which are polyesters which are formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid (see column 3, line 8 through column 4, line 75). Thus one of ordinary skill in the art would have recognized that the polyester material selected as the plasticizer would be



Art Unit: 1772

readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the plasticizer recited in claim 14 in the composition of Trautvetter et al. in order to provide high flexibility and workability, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (applies to instant claim 14). *In re Leshin*, 125 USPQ 416.

5. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Sademitsu et al. (EP 0 166 385 A2) in view of Trautvetter et al. (U.S. Patent No. 4,200,568) and Whiton (U.S. Patent No. 3,541,039).

Sademitsu et al. (EP 0 166 385 A2) teach a pipe including at least one layer consisting of a blend of polyvinylidene fluoride copolymer and polyvinylidene fluoride resin (see abstract) (applies to instant claim 6).

Sademitsu et al. fail to disclose a shaped article, including at least one layer consisting of a composition comprising a PVDF homopolymer and at least one fluoropolymer, wherein the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer, approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride (VF<sub>2</sub>) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to

Art Unit: 1772

25% (column 2, lines 63-68), wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene.

Trautvetter et al. teach a shaped article (column 1, lines 13-21), including at least one layer consisting of a composition comprising a PVDF homopolymer and at least one fluoropolymer (column 1, lines 58-68), wherein the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer (column 1, lines 58-68), approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride ( $\text{VF}_2$ ) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25% (column 2, lines 63-68), wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene (column 2, lines 63-68) (applies to instant claims 7 and 12) for the purpose of providing improved impact strength and elongation at rupture characteristics.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided at least one layer consisting of a composition comprising a PVDF homopolymer and at least one fluoropolymer, wherein the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer, approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride ( $\text{VF}_2$ ) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25% (column 2, lines 63-68), wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene in the pipe of

Art Unit: 1772

Sademitsu et al. in order to provide improved impact strength and elongation at rupture characteristics as taught or suggested by Trautvetter et al..

Sademitsu et al. fail to disclose the composition further comprises approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer, wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid.

Whiton teaches a composition further comprising approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer (column 2, lines 30-58, column 3, lines 8-36), wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid (column 3, line 8 through column 4, line 75) (applies to instant claims 6 and 11) in a PVDF and VF<sub>2</sub> mixture for the purpose of providing high flexibility and workability.

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a composition which further comprises approximately from 5 to 20%, relative to the total weight of the polymers of a monomeric or polymeric plasticizer, wherein said plasticizer includes at least one polymeric polyester, with a molecular mass of approximately 1500 to 5000, wherein the polyester is formed of a diol and an acid selected from the group consisting of adipic

Art. Unit: 1772

acid, azelaic acid and sebacic acid in the pipe Sademitsu et al. in order to provide high flexibility and workability as taught or suggested by Whiton.

With regards to claim 9, although Trautvetter et al. fail to recite the specific melt index recited in instant claims 9 for the copolymer, such a melt index is inherent in the invention of Trautvetter et al. because Trautvetter et al. specifically specifically teach one fluoropolymer, where in the composition comprises, by weight, approximately 60 to 80% of at least one PVDF homopolymer, approximately from 20 to 40% of at least one thermoplastic copolymer of vinylidene fluoride ( $\text{VF}_2$ ) and of at least one other fluoromonomer, present is this copolymer in weight proportions of approximately 5 to 25%, wherein the fluoromonomer is selected from the group consisting of hexafluoropropylene, chlorotrifluoroethylene and trifluoroethylene as discussed above. Furthermore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided said melt index in the composition recited by Sademitsu et al. in order to provide improved flexibility (applies to instant claim 13).

The combination of Sademitsu et al. and Trautvetter et al. and Whiton discloses the claimed invention except for the material recited in claim 10 used as the plasticizer. However, Whiton discloses an array of compounds which are polyesters which are formed of a diol and an acid selected from the group consisting of adipic acid, azelaic acid and sebacic acid (see column 3, line 8 through column 4, line 75). Thus one of ordinary skill in the art would have recognized that the polyester material selected as the plasticizer would be readily determined through routine experimentation depending

Art Unit: 1772

on the desired end results absent some showing of unexpected results. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the plasticizer recited in claim 10 in the composition of Sademitsu et al. in order to provide high flexibility and workability, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (applies to instant claim 10). *In re Leshin*, 125 USPQ 416.

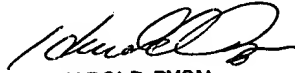
### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yokokawa et al. (U.S. Patent No. 4,094,949) is cited as relevant prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

5/5/03

Application/Control Number: 09/881,747

Page 13

Art Unit: 1772

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May 5, 2003